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ORIGINAL ARTICLE

Doings and Subject Causation

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Abstract In the center of this paper is a phenomenological claim: we experience ourselves in our own doings and we experience others when we perceive them in their doings as *active* in the sense of being a cause of the corresponding physical event. These experiences are fundamental to the way we view ourselves and others. It is therefore desirable for any philosophical theory to be compatible with the content of these experiences and thus to avoid the attribution of radical and permanent error to human experience. A theory of 'subject causation' according to which the active subject continuously and simultaneously causes physical changes is sketched. This account is—according to the phenomenological claim defended—compatible with the content of our daily experiences in doing something and in observing others in their doings and it has a number of further more theoretical advantages: it does not touch the autonomy of neurophysiology and it is compatible with a thesis of supervenience of the mental on the physical. It does however require a weak version of subject-body dualism.

1 Doings

In this paper I will be primarily concerned with doings or activities rather than with the more specific case of actions.[1] Many things we do in our daily lives are not actions. A person caught in her thoughts might smile, scratch her head, stand up and walk around. Under normal circumstances these activities are not actions, they are

[1] I will use the terms 'doings' and 'activities' in an interchangeable manner.

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only doings. Doings are often done without reason. The author of a doing need not notice what she is doing.[2] Most bodily movements of human and non-human animals while awake are doings. Doings need not be controlled: the spontaneous laughter after hearing a joke, the crying of a baby that longs for the presence of a parent, or the happy smile of surprise when meeting a friend unexpectedly are examples of doings without control. Nonetheless the person is active in her laughing, crying, or smiling.[3] Counterexamples are—under normal circumstances—the movements of the heart or those involved in digestion. These things happen to the subject, they are not done; the subject is not actively involved. Not all doings involve visible movement. Directing one's attention towards a particular problem, trying to remember a detail about the face of a person one was familiar with as a child, consciously and intentionally comparing the expected outcome of different possible causes of action are activities without bodily movement. Many philosophers think that only human animals are capable of genuine action. I will not discuss this controversial claim. But surely doings are not restricted to the human domain. The jump of a squirrel from one branch to the next, the yawning of a dog, the running away of a frightened mouse, all these are cases of genuine activities.[4]

Is there a clear-cut line between actions and mere doings and is there a sharp distinction between doings and non-doings? What are the criteria that distinguish actions from mere doings and doings in general from events that are not activities? I will not presuppose any specific account of what makes a particular doing an action. There are clear positive cases. Something done on the basis of conscious previous deliberation about open alternatives is a genuine action. But some actions are neither preceded by conscious deliberation nor by any conscious decision. Zinedine Zidane's shocking attack against Marco Materazzi was surely a genuine action—an action out of emotion, without previous deliberation and without any conscious previous decision. Zidane's attack does not seem to be a borderline case between actions and mere doings. But there probably are such borderline cases. Even on the basis of the most adequate account of actions, as opposed to mere doings, it might be impossible in some cases to decide whether or not a given doing is a genuine act. It seems less plausible to me that there are borderline cases between doings and mere happenings as well. What makes an event a doing is the fact that the subject at issue is active in that doing. One might well think that in any particular case there must be an answer to the question of whether or not the subject at issue is actively involved.

[2] I tend to think that there is always—in fact or even necessarily—some phenomenal awareness of every doing. To notice one's own doing, however, requires more than phenomenal awareness. While talking, a person's attention might be caught by her interlocutor's objection in such a way that she does not notice her own arm movements although she is at the same time phenomenally aware of moving her arms.

[3] For more about the distinction between being active and controlling see Sect. 3 below.

[4] Mere doings are not in the focus of contemporary philosophical investigation. Most philosophers rather reflect about the specific case of actions or even more specifically about rational action. But there are exceptions: cases of mere doings play a central role in the objections against John Searle's claims about 'intention in action' in Wakefield and Dreyfus (1991). Doings overlap with what is called minimal actions by Bayne (2007) following Bach (1978).

It is, of course, not easy to say what it is to be active in one's doings. I will propose a specific account of the difference between doings and mere happenings that will involve the idea of what I call here subject causation. In a doing the subject is itself, or so I claim, a cause of what happens. This specific account of doings will be controversial. Even those who will reject this particular account will, I hope, agree with the following claims: (a) doings—in the sense here introduced by a few paradigmatic examples—form a specific class of happenings which have some philosophically relevant feature in common. (b) This common feature of doings is appropriately captured by saying that the subject is active in every doing and only in its doings. (c) Doings form a much broader class than actions.

2 A Phenomenological Claim

The view I will sketch in the present paper is based on an intuitive idea that I take to be a phenomenological insight. The intuitive idea at issue is a claim about the content of our experiences whenever we do something and whenever we perceive other conscious individuals in their activities. Let me begin with the second case. Remember your experiences while observing a squirrel that runs around, takes up objects, runs up a tree and jumps elegantly form one branch to another. If you are like most people then you will be convinced that the squirrel is a subject of experience. Not only do you believe that the squirrel is an experiencing individual but you also *perceive it as such*. It is part of the way you see the squirrel that you see it as a subject with its own 'perspective'. To see a human or non-human animal as a subject of experience involves being implicitly aware, in that experience, of the fact that there is 'someone' who experiences the environment from a specific point of view and in a specific way. But the experience of an animal as a subject of experience normally not only involves being aware of the fact that there is 'someone' who has experiences, it also normally involves awareness of something we might call spontaneity. Seeing, for example, a squirrel as a subject of experience involves, in addition to seeing it as having experiences, seeing it as being active. Seeing a squirrel as a subject of experience involves seeing a great part of its bodily movements as genuine activities. A squirrel's jump from one branch to another does not look to someone who sees the squirrel as a subject of experience like the mere result of some inner mechanical process. It looks like something done by the squirrel, by the subject at issue itself.

The case of a squirrel jumping is a special one: the squirrel does something at the very beginning, a sudden movement of its legs and the rest happens. In the air between the branches the squirrel is not active or need not be active to complete the jump. So in a sense the movement is initiated by the squirrel itself but the following translocation of the squirrel's body from one branch towards another is merely a physical causal consequence. By carefully observing a squirrel in its jumping we see the squirrel itself as being active in the movement at the beginning of the jump. In other cases, however, there is no short initiating phase followed by a longer passive part of the event, rather the movement is seen as constantly and simultaneously produced by the subject itself even if extended within a longer period of time. The subject is—according to our way of experiencing these events—constantly and

continuously active in its temporally extended doings. The piano player is active in her finger movements during the whole concert. The elephant is active when it slowly reaches out with its trunk for an object at some distance. We *see* the piano player *as* being active during the whole piece and we *see* the elephant *as* being active during its entire movement. If this is correct then it is part of the content of experiences of this kind that the subject at issue is constantly and simultaneously active in its doings.

An analogous claim applies to the way we perceive ourselves in our own doings. In doing something we are at least normally phenomenally aware of doing something. To be phenomenally aware of doing something involves the experience of oneself as being active. In doing something we experience our own spontaneity. We are aware of the difference between those cases where something merely happens to us and those cases where *we* directly bring about what happens. This is also true for the case of thinking. On the basis of the way we experience our own thinking we can, for instance, distinguish a case where we actively direct our attention towards a problem from a case where the problem pops up in our mind without our active contribution.

To sum it up, the phenomenological claim is this: it is normally part of the content of our experience when we do something that we are active in that doing; and it is part of the content of our perceptual experience when we observe others in their doings that they are active in what they do. By saying this and using the still quite vague term 'being active in one's doings' I am trying to remain neutral with respect to the interpretation and the theoretical account of that experiential content. For the moment I am still trying to simply point to a particular aspect of our daily experiences by describing its content. If I have been successful in doing this then the reader should be able to identify the aspect I am talking about in his or her own experience.[5]

3 Possible Misunderstandings of the Phenomenological Claim

The experience of being active in one's doings should not be confused with the experience of control in the sense of being able to prevent what happens. Something that merely happens to a subject may be something the subject could interrupt if there was reason to do so. A person may, for example, enjoy bodily events that happen to her during sexual excitement and be able to interrupt those events if necessary. The bodily events involved, however, are not experienced as doings, the person does not normally experience herself as being active in bringing these events about (although she may be active and experience herself as being active in creating a situation that makes those happenings likely to occur).[6] The experience of being

[5] It might be doubted that our being active in doing something is always phenomenally present during every activity. If we are caught in conversation then we might not notice that we scratch our head. Still it may be argued that the activity is phenomenally present at least in a vague way. But the claim will be controversial. The argument of this paper in no way depends on the assumption that we are *always* aware of being active in our doings.

[6] The notion of control in the sense of being able to intervene is crucial for Harry Frankfurt's theory of agency (see Frankfurt 1978). What has just been said implies that the notion of being active in the sense here at issue cannot be capture by Frankfurt's notion of control.

active in one's doings should not be confused either with the experience of intentional simultaneous control. We sometimes do experience ourselves as consciously and intentionally controlling the details of our movements. This kind of experience can be present e.g., in practicing the movements of the fingers in a part of a piano piece or when crossing a river walking over slippery stones. But in many cases of experiencing oneself as being active we do not experience ourselves as being involved in this kind of conscious and intentional control. The same applies to the case of experiencing others. To see the squirrel as being active in its movements is not to see the squirrel as being consciously and intentionally controlling the details of its own movement. Some activities are clearly such that we have little or no control over many details of the movement. Playing a complex and well-practiced piece of music on an instrument is impossible without relying on a complex learned motor program that in great part could not be replaced by intentionally guiding the way one moves. Leaving a great part of the control to that program we can still consciously and intentionally control some other details, e.g., the musical expression in the piece we are playing. But even in cases where such conscious intentional control is completely absent we are still active in the playing of the instrument and still experience ourselves as being active in those movements.

Another mistake would be to confuse experiencing oneself as active in one's doings with being in some sense conscious of the event involved. A person may be reflexively aware of the fact that her arm moves upwards and yet not experience herself as being active in that happening (the arm might rise as a consequence of some externally induced neural stimulation). The same remark applies to mere phenomenal awareness without any second order reflexive thought. To be phenomenally aware of a bodily change is obviously different from experiencing oneself as actively bringing that change about. Experiencing oneself as active in a doing cannot be equated with experiencing some causal connection between one's own intention to do something and the relevant change. When a person experiences herself as actively raising her arm she does not thereby have an experience with the following content: I have the intention to raise the arm and the intention causes my arm to go up.[7] We can be aware of actively executing a movement without being aware of any intention to move.[8] Furthermore it is surely not the case that we experience our own intention as causing a movement whenever we experience ourselves as active in a bodily doing. I doubt that we ever experience our intentions or other mental events or processes (like beliefs or desires) as causing the relevant bodily change.[9] Another mistaken proposal (maybe too absurd to be worth mentioning) would be to interpret the experience of being active in one's doings as phenomenal awareness of one's own muzzle contraction. Muzzle contractions can be phenomenally present in one's experience even if they are mere happenings (like

[7] Here I agree with Terry Horgan's phenomenological claims in his paper for this volume, Sect. 1, §5–§7 and with the phenomenological claims in Horgan et al. (2003, p. 329).

[8] This claim is obviously true for intentions that precede the movement. However, with respect to what John Searle has called 'intentions in action' the claim may be doubted (compare Searle 1983, Chap. 3, Sect. VII). A clarification of this point would need a discussion of the relation between the notion of being active here at issue and Searle's notion of intention in action which I have to leave to another occasion.

[9] For very similar remarks compare Horgan et al. (2003, p. 328).

for instance in a muzzle cramp) and in many activities (e.g., in drawing one's attention to a particular problem) there is no muzzle contraction involved anyway.

It is often said that we experience ourselves as the author of our own action and that explicating the sense in which we really are the author of our own actions is one central task for every philosophical account of agency. According to a widely accepted approach we are the author of our own action in the sense of the action being the causal result of appropriate mental states (e.g., of beliefs and desires that would 'rationalize' the action). It should be clear from what has been said so far that experiencing oneself as active in a doing is not to be confused with experiencing oneself as the author of an action in the sense proposed by the approach just mentioned. Many of our doings are a-rational. They are not done for a reason. They are not based on rational deliberation, nor are they causally produced by beliefs and desires that could rationalize them. A person sitting in a train and moving her head from time to time from one side to the other does not move her head for any reason. There is no deliberation involved and no choice from a set of alternatives, and it is implausible to assume that there are any unconscious wishes and desires that bring these movements about and could rationalize them. Much or most of our active behavior falls outside the realm of rationality, but even in doings that fall outside the realm of rationality we experience ourselves as being active. The experience of being active in these doings has nothing to do with experiencing them (mistakenly in that case) as being the result of some rational process. Being active and experiencing oneself as active has nothing to do with rationality. We experience ourselves as being active even in doings that are done without reason and we experience other conscious individuals as active even if they belong to a species of animals incapable of acting on the basis of reasons.

If you reflect upon concrete cases, you will, I hope, agree that these experiences of ourselves as being active and these perceptions of others as active in their doings are deeply incorporated in the way we conceive of ourselves and of others. Our perception of others as active is constitutive of what it is to see another being as a subject of experience. If these experiences were not veridical then our experientially founded conception of ourselves and of others would be fundamentally wrong.[10]

4 From Phenomenology to Ontology?

In the remaining part of the paper I will sketch a phenomenological argument in favor of a dualist position that incorporates the view that subjects are themselves causes of what happens in their doings (see Sect. 5 below). The structure of the reasoning may be described as follows:

(1) Phenomenological reflection reveals that we experience ourselves in our own doings and that we perceive others in their doings as being active and that

[10] It should be noted that our emotional reaction to others is in many cases based on seeing them as active. Watching a squirrel would not be emotionally touching if we did not see it as being active in what it does. It is hard to imagine how we could observe another person in her doings with a loving feeling if we did not see him or her as active in the relevant sense.

these experiences and perceptions are deeply incorporated in our view of ourselves and others (see Sect. 3 above).

(2) The content of these experiences can only be veridical if subject causation is real (see Sect. 5 below). A few elements of a dualist thesis of subject causation will be described that should (a) be consistent with the content of the experiences mentioned in (1) and thus avoid the attribution of massive error and (b) be motivated by independent theoretical considerations.

(3) Subject causation as described in (2) cannot be real unless subjects are non-physical entities.

(4) Given (1–3) the dualist subject causation theory sketched in (2) is indirectly supported by phenomenological reflection. Contrary to any philosophical theory that denies subject causation it avoids the undesirable consequence of attributing massive, permanent and fundamental error to the way we experience ourselves and others.

In leading to (4) the argument supports *to some extent* a dualist subject causation theory. One may object that the phenomenological motivation here presented is counterbalanced by other considerations. In the present paper I will not try to answer any of these considerations. Another objection will simply point to the fact that the way we experience things is often misleading.[11] But the argument here presented does not rely on the contrary assumption. Obviously we cannot simply trust the way things appear to us. However, we should be reluctant to accept a theory that implies massive, fundamental and permanent error in the way we experience ourselves and others. The phenomenological motivation here presented is not sufficient to support the view in a way that will move a philosopher who sympathizes with contemporary materialist proposals. In order to convince the skeptical reader of the merits of a dualist subject causation theory, independent further support for that view surely would have to be added and a great number of possible objections against dualist approaches in general and the specific version of dualism here proposed would have to be addressed. In this paper however I will focus on a description of the dualist subject causation claim and its phenomenological motivation. The phenomenological argument sketched in this paper is, however, only one of several considerations that converge—in my view—in yielding support for a philosophical account of consciousness along the lines that will be briefly presented in what follows.[12]

[11] More directly to the point it might be objected on the basis of empirical evidence such as the well-known experiments by Wegner that we are often under an illusion when we believe ourselves to be the author of an action. On a closer look, however, these results have no impact on the phenomenological aspect here at issue. The subjects in Wegner's experiential setting have to estimate their own contribution to a movement that is produced (or appears to be produced) by the interaction of the activity of two agents. There is evidence that this estimation can be influenced by factors that have nothing to do with the real contribution of the estimating subject which is an interesting result in its own right but has no impact on the present case of experiencing oneself as active. The subjects at issue would rightly experience themselves as being active in their doing (there is no doubt that they do *something* when following the instructions) independently of the extent to which they can be tricked into error when asked to estimate their own contribution to the resulting movement under the special circumstances of the experiment. (See Wegner and Wheatley 1999; Wegner 2002.)

[12] The kind of dualism at issue (see Sect. 7 below) is—in my view—well supported by considerations concerning identity across time (see Nida-Rümelin 2006a, 2008).

5 Subject Causation

By the claim that we experience ourselves and others as active in our doings I have isolated or referred to an aspect of the phenomenology of agency. The aspect I wish to draw attention to in the first-person-case is closely related or identical to the aspect that Horgan et al. (2003) have in mind when they claim that in acting we experience our bodily movements as 'immanently generated'. To refer to the same phenomenon Bayne (2007) uses the term 'experience as self as source'. Now it is one thing to refer to an aspect of the phenomenology of experiences by roughly describing its content and it is quite another to give a theoretical account of that content by describing in theoretical terminology the conditions that must obtain for the experience to be veridical. It seems quite obvious to me that to experience oneself as active in one's doing can be described equally well by saying that we experience ourselves as *the cause* or *a cause* of what happens. The same applies to the perception of others: to see another animal as being active in its doing is to see it (the other experiencing subject) as a causal origin of its movements. But what is required for the experience to be veridical? Do we need to assume that these experiences can be veridical only if the subject is itself a cause in a sense similar to the one discussed under the heading 'agent causation'? It seems quite clear to me that we have to admit this further step.[13] I will now proceed as follows: I will describe a thesis of subject causation that appears to me to be phenomenally adequate in this sense: if the thesis is correct, then the experiences at issue are veridical. The thesis involves the idea that the subject itself is a causal origin of what happens in what it does. Furthermore, according to that claim, the subject *simultaneously* and *continuously* causes physical events whenever it does something.[14] The further constraint that subject causation is 'simultaneous' and 'continuous' in a sense to be explained is motivated in two different ways: (a) it is motivated by the way we experience our own doings. (When I move my arm, it is not as if my contribution consisted in initiating the movement at its very beginning and as if the movement continued without my contribution afterwards. Rather I seem to be actively involved during the whole movement.) (b) It is also motivated by theoretical considerations. To claim that subject causation is 'simultaneous' and 'continuous' allows for the acceptance of nomological supervenience of consciousness properties on physical properties (see Sect. 8) and it allows for a limited

[13] For a discussion of the issue about the veridicality conditions of this aspect of the phenomenology of agency compare Horgan et al. (2003, p. 335). They consider an alternative to the view that the veridicality of the experience of immanent causation requires agent causation: according to that view, for a person to be the cause of her own movements consists in the movement being caused by the right kind of preceding mental events. Therefore, even though the causation of the movement by mental events is not phenomenally present—given this reductive analysis of what it is to be a cause of one's own movements—the veridicality conditions of the experience of immanent causation would not require immanent causation in the metaphysical sense. However, when considering doings in general as opposed to the special case of actions this proposal looses much of its plausibility. We experience ourselves as active in many doings where there does not seem to be any plausible candidate for a mental event as a preceding cause (consider the example of moving your gaze without reason from the window on your left to the window on your right during a journey by train).

[14] To avoid misunderstandings of these claims compare Sect. 6, last paragraph.

autonomy of the neurosciences (see Sect. 9). The claim of subject causation proposed includes that the subject causes brain events. This more specific claim is obviously not motivated by phenomenology. We are phenomenally aware of being the cause of our movements but we are not aware of being the cause of our movements by directly causing changes in our brain.

The strategy chosen may thus be described in a more abstract manner as follows. We are interested in those philosophical theories that do not attribute massive error to our normal experience of ourselves and others in doing something. We therefore restrict the theories considered to those that include a claim of subject causation. Among the remaining philosophical theories we try to choose those (or the one) that are (is) best motivated by independent theoretical reasons.

The idea of subject causation as defended here is closely related to the different versions of agent causation present in the philosophical literature.[15] Those theories of agent causation and the present claim of subject causation share the idea that the active subject is itself a cause. Both approaches imply the existence of a further causal relation in addition to the relation of causation between events: a causal relation that obtains between subjects (as causes) and events (as causal effects). The thesis of agent causation is however—as the name clearly suggests—restricted to the case of actions. Most agent causation theorists are explicit in limiting the claim to the human case; some even restrict the claim to the case of particular free acts that are morally motivated.[16] Contrary to this, the claim of subject causation here proposed is not restricted to actions and not restricted to humans.

Furthermore, most versions of agent causation invite a specific picture about the causal influence of the subject at issue that seems to me to be quite mistaken: the agent—according to this picture—only intervenes at some specific isolated points in the causal process that brings, for example, a particular bodily movement about. The agent intervenes e.g., at some specific moment when a choice between open alternatives is taken; after the choice, things develop in their normal 'mechanically determined' way. According to that picture there are only a few quite special points in the course of events where the future is underdetermined by normal physical event causality and where there is room for the agent to causally intervene by choosing one of a number of open alternatives. The picture I propose is quite different. Subject causation is not an isolated rare phenomenon. Rather, subject causation is constantly present in every moment while a conscious individual is awake. Subject causation is not 'point-like', it is extended in time; the subject continuously influences what happens. This is, I contend, the picture that is forced on us if we take the phenomenology of our experience seriously. If I raise my arm then I do not experience myself as producing some mental event that in turn causes the physical event of my arm's going up. I do not experience my bodily movements as caused by some preceding event I have brought about. Rather I experience myself as causing the movement during the whole movement. Phenomenology suggests

[15] Roderick M. Chisholm famously held an agent causation view at some point (see Chisholm 1976). More recently a new detailed elaboration of a version of the view has been developed by Timothy O'Connor (see O'Connor 2000).

[16] Agent causation is restricted to the case of moral choices in Campbell (1976).

that subject causation causes the movement while it is taking place and in many cases during the whole movement. The same applies to mental activities. A person may direct her attention upon the specific color of the sky. In doing so she will in some cases experience herself as causing the upholding of that attention during the whole period in which the attention is directed upon that specific color.[17]

6 Dualism

Can the claim of subject causation be combined with the idea that the subject of experience is a material thing (the whole body, the brain or a part of the brain)? If these two claims cannot be plausibly combined then phenomenological reflection gives some support to a quite strong dualist view according to which subjects belong to a separate ontological category different from the one of material objects. Let us see, therefore, if the claim of subject causation leads in a natural way to the denial of the view that subjects are ordinary material entities.

Suppose that subjects cause events in their brain *and* that subjects are identical to their brain. It follows that the brain as a whole causes events happing within the brain. Can we make sense of that proposal? What could it possibly mean that a material thing as such causes something that happens inside of it? Consider a different case: what could it mean that a computer as a whole causes a process within it? It seems plain that to talk in this way is to talk nonsense. All causation happening in the case of a computer is event causation. It could, however, be objected: the human brain is a different case. We know that the human brain is a subject of experience and we understand what it is for a subject of experience to cause an event. But to respond in this way is to admit that we understand the sense in which a brain can be said to be a cause only *in virtue* of the assumption that it is a subject in the relevant sense. This view, however, does not seem to be a stable position. A philosopher who accepts that material objects as a whole can cause events happening inside of them should have a way to render this supposed causal relation conceivable which is independent of the assumption that the object belongs to the special class of experiencing subjects and which is applicable to non-conscious material things as well. If this reasoning is correct then we are confined to a *dualist* subject causation theory.[18]

To admit that subjects are not material entities, however, is not to commit oneself to any traditional version of substance dualism. The version of dualism that should, in my view, be combined with the subject causation thesis is freed from a number of assumptions that have traditionally been associated with that kind of view. The weak form of dualism at issue can be partially described by the following remarks. (In what follows I am not trying to give a substantial account of the ontological status of the subject of experience. The purpose is mainly to give a negative

[17] I am not claiming here that every case of attending is an activity and is experienced as caused by the attending subject. Sometimes our attention is caught by something quite passively. In these cases it need not appear to us as if we were actively upholding attention to the object at issue.

[18] For a discussion of whether agent causation requires subject dualism see O'Connor (2002, Sect. 2.2).

characterization in order to stress that a number of problematic assumptions associated with so-called substance dualism can and should be avoided.) To avoid the term 'substance dualism' which may invite misunderstandings I will call the view at issue 'subject—body—dualism'.[19]

The subject of experience is the individual thing that has consciousness properties (the property of experiencing something, the property of believing, wishing or fearing something, the property of reflecting about a problem, the property of intending or doing something, etc.). There is some reason to think that it is in principle impossible to have any of these consciousness properties without having a body. Subject-body dualism does not imply that subjects of experience can exist without having a body and, of course, neither does it imply their eternal existence. Subjects *have* bodies, according to this view, as opposed to *being* bodies. To have a particular organism as one's body is to stand in a certain intimate relation to that body: if subject S has the organism O as its body then damage to O will normally cause pains for S and S will act with that body. If S raises her arm then it is the arm of O that moves upwards. This intimate relation (a relation we are well acquainted with on the basis of our daily experience) is not a relation of metaphysical composition. Some traditional substance dualists claim that the person is metaphysically composed of two parts—a soul and a body. According to that traditional view, if we refer to a person using her name or if a person refers to herself using the first person pronoun, then the referent is a thing composed of a body and a soul. This is not the picture here proposed. When using names of people (or of dogs or horses or cats or dolphins) we refer to the subject of experience that has the body at issue. When using the first person pronoun we refer to ourselves, to a subject of experience, to the subject who has the body that is ours. Subject-body dualism does not imply the existence of 'souls' as conceived of in religious thought. A soul is often thought of as something that is in some sense composed of non-material matter, and that is in some sense only a part of the person. Subjects of experience—according to subject-body dualism—are not composed of any material. They are not composed at all. There is no reason to posit the existence of non-material stuff. Souls are also thought of as capable of being *in* the body and as capable of leaving the body. Subjects of experience are neither in the body nor can we think of them as leaving the body as if flying away. Subjects of experience are located in a derivative sense; they are located in virtue of having a located body. Some of the problems of traditional substance dualism can be avoided by adopting subject-body dualism. But subject-body dualism surely inherits a number of serious problems from traditional substance dualism. There is no room, however, in the present paper to try to answer these difficulties.[20]

[19] Unfortunately the chosen name does not make it clear enough that any theory identifying the subject with some part of the body is intended to be excluded.

[20] For a more extended discussion of subject-body dualism see my book (2006, Chap. 5). (An English translation is in preparation.) One often cited problem is the puzzle about how non-material substances can have causal impact on material things. Jaegwon Kim has developed a version of this objection against any substance dualist theory in Chap. 3 of his new book (Kim 2005). This objection will be discussed in my review of the book (in preparation for *Philosophy and Phenomenological Research*).

7 Open Questions

A number of additional problems for the thesis of subject causation cannot be treated in a satisfactory way in the present paper. Nevertheless, I would like to briefly mention a few of them. One difficulty concerns the causal relevance of psychological preconditions (like the person's beliefs and desires) for what the person does. The difficulty may be illustrated by the example of a choice taken on the basis of conscious reflection. Let us assume that a person decides to move her arm in order to vote for a particular candidate after careful reflection upon the different alternatives. Her reflection led her to form the belief that Mr. X is the best candidate. She chooses to vote for Mr. X on the basis of this belief and her desire to vote for the best candidate. Her choice is the reason why she moves her arm in the appropriate way at the appropriate moment. According to the view here proposed the person is active in her choice as well as in her movement. This is to say that the person is herself a cause of the neurological process underlying the choice and that the person is herself a cause of some of the neurological processes leading to the movement of the arm. In both cases the causation of the processes at issue by the person herself is not itself caused by previous events. So the following view is *not* open to a philosopher who believes in subject causation: actualized beliefs and desires cause the choice and the choice causes the movement. Rather, the philosopher who defends the idea of subject causation must insist that the choice is *motivated* but *not caused* by beliefs and desires and that the movement is motivated but not caused by the previous choice. As this example shows, the claim of subject causation requires the introduction of a non-causal notion of motivation. This is the first problem that needs to be handled: a developed theory of subject causation has to include a convincing theory of non-causal motivation.

Another related problem concerns the way in which subject causation and normal event causation are supposed to interact. It is clear that the particular way a person moves in a given activity depends causally on preceding neural events. The case of a piano player can illustrate the problem. The activation of a particular motor program must be a partial cause of the particular movements of the fingers while the person plays a given piece. According to the claim of subject causation there is a further cause involved: the person herself who causes the movement. But if both ideas are true then we need an account of how the two causes, the neural event and the person, cooperate to bring the result about. It seems to me that something like the following description goes in the right direction: the activation of the motor program is a necessary physiological preparation for a movement of a particular pattern to occur, but without the causation by the person the pattern at issue would not be realized. Subject causation thus is an additional necessary condition for the movement.[21]

A further problem for the theorist who defends the claim of subject causation is to specify the event caused by the subject in a given activity.[22] The event caused is

[21] Other aspects of the issue about the relation between subject causation and mental event causation are addressed in my paper (2006b, Sect. 6).

[22] Different possibilities have been proposed by agent causation theorists; for a brief overview see O'Connor (2002, Sect. 2.4).

not the doing itself. It would be inappropriate to say that a person who plays the piano causes her playing of the piano. If by 'her playing the piano' we refer to the doing at issue then the causation by the person is an essential part of the piano playing. But the person does not cause her own causing. So the event caused in a doing is not the doing. It seems clear that the events immediately caused by a subject in a given activity are neural events in the brain. Even in the case of a simple and short doing like kicking a ball into a goal there won't be one single event caused by the subject but rather a number of different events that are causally and otherwise interrelated. Activities such as directing one's attention in a particular way, imagining the right kick, moving the legs, etc. are all part of the activity and involve the causation of different interrelated neural processes. It is impossible to give a precise account of the events caused by the subject in a given activity without heavily relying on empirical knowledge about the underlying neural processes.

At this point, however, an objection against the approach here presented may come to mind.[23] While we do experience ourselves and others as in some sense active in our doings, we *do not* experience ourselves and others as causing brain events. People experienced themselves as active already at a time where the role of the brain was unknown. Therefore the claim of subject causation cannot be defended by pointing out that its denial would imply massive illusion in the way we experience ourselves and others. It follows that the phenomenological argument in favor of the claim of subject causation given above is unsuccessful. The answer to this objection, I think, should be elaborated along the following lines. In the case of bodily behavior, for example, we experience ourselves as active in the sense of causing our movements. It is certainly not part of the phenomenology of doing something that we experience ourselves as causing brain processes. However, the negation of this claim is not part of the content of the relevant experiences either. The phenomenology of doing something is neutral with respect to the direct effects of subject causation. The content of the relevant experiences is in no conflict with the assumption that we cause our movements by causing brain events. Thus the more specific claim that we cause our movements by causing brain events is not supported by phenomenology alone. Phenomenology only supports the claim that we cause our bodily movements and it does not undermine the claim that we do so by directly causing brain events. The latter additional claim is supported by different theoretical considerations.

8 Simultaneous Causation

It is common and natural to think about causation in general in a way that involves the idea of temporal order: the cause temporally precedes its effect. According to this view of causation the mental event that causes a physical event happens before the physical event. A dualist who wishes to defend the idea that the causing mental event, e.g., a decision to act in a specific way, is not itself caused by any previous

[23] I owe my awareness of this problem to Katia Saporiti who raised a similar objection after my talk at the meeting in honor of Ansgar Beckermann (July 2005, department of philosophy, Bielefeld).

event will be led to the following picture: the decision, a mental event, happens outside the physical realm and without any physical basis and causes some appropriate physical event which in turn causes, for example, a bodily movement. It seems quite obvious that we should resist this picture. Mental events require a physical basis. No decision can be taken without a simultaneous corresponding change in the brain. We should accept the following supervenience claim: there can be no difference between two individuals at time t with respect to the mental without a *simultaneous* difference with respect to the physical. A supervenience principle of this kind excludes the traditional dualist picture just sketched.

The agent causation theorist is not committed to the claim of a temporal order between the mental cause and the physical effect. To the contrary, the idea that the cause precedes the effect does not seem to be applicable to the case where a person is the cause. The person is no event and therefore cannot temporally precede any physical event, but the causation of a physical event by the person is itself an event and we can ask about *its* supposed temporal relation to the event caused by the person. Does the event of causation—according to the agent causation theorist—happen *before* the caused event? This would be a strange thing to say. After all an event is caused only at the moment in which it at least starts to happen. It seems to me—as mentioned earlier—that most proponents of agent causation have the following idea in mind: the person initiates the relevant event at its very beginning—just as the kicking of a ball may initiate its rolling down a hill.

Both dualist pictures of mental causation just mentioned appear unacceptable to me. The idea that there are mental events happening in some mental realm that precede their physical effects leads to serious problems. Mental events of the relevant kind are structured and they carry information. It is therefore difficult to see how they could occur without a physical basis unless we posit a mysterious mental quasi-spatially extended stuff *in which* they are assumed to happen. To assume—as an alternative—that the causing mental events are non-identical with brain events but nonetheless accompanied by corresponding simultaneous brain events does not seem to solve the problem. Among other difficulties it raises the much-discussed issue about over-determination Jaegwon Kim has famously been working on for many years.[24] On the other hand, the idea of an initiating cause at the beginning of the caused physical event appears to me unacceptable for phenomenological reasons: it does not conform to the way we experience our own activities and to the way we perceive others in their activities.

Within a theory of subject causation I would like to propose an alternative view about the temporal relations involved; one might call the thesis at issue the claim of *simultaneous causal interaction*. The claim is highly speculative but as philosophers we are allowed and even sometimes obliged to speculate. To explain the view of simultaneous causal interaction I will use the example of a conscious decision. A decision may be said to be a mental event in the following sense: it partially consists in the change of mental properties; the subject who takes the decision will be psychologically different after the decision. However, a decision does not consist in a change of mental properties alone. In taking a decision the subject causes a change

[24] Compare in particular his recent formulation of the argument in Kim (2005, Chap. 3).

in its brain. The subject causes the occurrence of the physical process (or at least some parts of that process) that underlies its own decision. The causation of that physical process partially constitutes the decision. To take a decision is not just to change mentally in a specific way; it is also to cause certain changes in one's own brain. According to this view, human decisions are not pure mental events. They consist partially in the causation of physical events. The temporal relations involved may then be described as follows. A decision and the physical event that underlies the mental changes involved in a decision occupy identical time intervals. During the entire process of making a decision, the subject is constantly causing the underlying brain event or certain aspects of it. The causation by the subject and the caused change happen at the same time. Any specific temporal part of the decision is simultaneously accompanied by a corresponding part of the physical event E and in each temporal part of the decision the person causes or partially causes the corresponding part (or some aspects of that corresponding part) of the neural event E. The claim holds true when considering smaller and smaller temporal parts. The latter remark makes it intuitively appropriate to talk of *continuous* simultaneous causation. In many, most or maybe even all cases continuous simultaneous causation between 'the mental' and the physical goes in both directions. In taking a decision, the subject partially causes the brain event underlying the mental change and that physical event simultaneously causes changes in the phenomenology of the subject's experience; in the present case, for instance, the subject experiences itself as taking a decision. It is plausible to assume that this experience is simultaneously caused by the physical event which is caused by the subject in its own decision.

An important objection against the present view is its incompatibility with the causal closure of the physical. According to the view presented, not every cause of a physical event is itself a physical event. Every scientific or philosophical argument in favor of the causal closure of the physical is an argument against the present view and needs to be addressed in an elaborated defense of this view. It should be obvious however that the present proposal of simultaneous causation does a better job compared to traditional dualist proposals with respect to the integration of consciousness into an overall view about nature. No structured mental events, happening independently of any physical event in some mental realm, need to be posited. Mental events consist simply in the change of subjects with respect to their mental properties and in the causation of physical events by the subject. The view is compatible with a claim of nomological and even metaphysical supervenience: no mental change without a physical change at the same moment.[25]

Other important objections that need to be addressed are based on the incompatibility of the present view with microphysical determination. If the view is correct then a given state of the world in microphysical terms together with microphysical laws does not causally determine later states of the world. The way the world develops depends on what subjects decide to do or simply do without taking a decision. Note however that for a given concrete case microphysical under-

[25] It is often assumed that the claim of metaphysical supervenience characterizes materialism. In my view this is a mistake. Metaphysical supervenience is compatible with a dualist position. See also Horgan (2006, Sect. 1) about this issue.

determination is compatible with psychological determination and that the assumption of limited psychological determination is compatible with the subject causation view proposed. Consider the case of a person who decides not to drink the content of a glass in front of her because she has reason to believe that the liquid is poisoned and because she does not wish to die. It is very plausible that there is no possible world with the same psychological laws where a person satisfying the same psychological conditions decides to drink the liquid. In this sense the decision is psychologically determined and in principle predictable with certainty. Note, however, that psychological determination in this sense is perfectly compatible with the idea that the person herself causes her decision.

I do not wish to imply, however, that every decision is psychologically determined in the sense that the person could not have done otherwise given all her beliefs and all her preferences and attitudes. Suppose that person A when confronted with a situation of conflict between egoistic motives and the sense of duty to help takes a decision in favor of egoistic motives. And suppose that B with exactly the same knowledge and preferences takes a decision in favor of helping. Can we conclude that A and B must be psychologically different at the time of their decision? Yes, we can. However, the psychological difference between the two may *consist* in the fact that A has the tendency to spontaneously choose the egoistic alternative while B has the tendency to cause the decision to help. No *further* psychological difference needs to be assumed. Does it follow that A and B act differently in exactly the same psychological situation? Yes, if we restrict the elements that count as part of the psychological situation to beliefs, desires, emotional attitudes, moral convictions and the like. No, if we include as a 'psychological factor' the *mere* tendency to decide in a particular way (that is to say to produce a certain decision by way of subject causation). There does not seem to be reason to deny that people can be psychologically different in the second sense and yet psychologically alike in the first sense.

9 Advantages of the View

According to the view I have been sketching, the brain would not work the way it does if it were not the basis of the mental life of a given subject of experience. If this is correct, then the occurrence of consciousness, even at a very low level, makes a difference for the functioning of the brain. The brain, according to that view, is not a physical mechanism: for many brain events there are no sufficient preceding physical causes. These events would not occur without the causal intervening of the subject of experience. This view has the advantage of allowing for an evolutionary explanation of the development of consciousness. It should in principle be possible to explain why a brain with consciousness has better chances to continue its existence than an otherwise similar biological system without consciousness. Along these lines we cannot explain why consciousness occurs in the first place, but, at least, the view opens the *possibility* of explaining the biological advantages of the emergence of consciousness.

Although the view proposed here implies that the brain is not a closed physical system it leaves the autonomy of neurophysiology largely intact. Since the view is compatible with the supervenience claim mentioned earlier, it is compatible with the assumption that any regularity at the level of consciousness will be mirrored by some regularity at the neuro-physiological level. The claim of subject causation does not exclude the possibility that a neurophysiologist discovers strict regularities at the level of neuro-physiological description. He or she might, for instance, describe those brain conditions in purely physiological terms that lead with high probability or even with certainty to a successful motor action (e.g., to kicking a ball into the goal provided that nobody intervenes). The neurophysiologist need not mention the causal role of the subject itself in, for example, directing its attention, in a particular way, since there will be a simultaneous neural event corresponding to the activity of directing attention that will be mentioned in the description of the relevant neural preconditions. Mentioning the subject and its activities in an empirical theory about the brain will not be necessary until concrete proposals for a reduction of neurophysiology to physics will be on the table. If the present view is correct then these proposals fail. Until that moment, however, neurophysiology may go on doing successful empirical research without taking into account the causal role of the subject of experience for its explanatory and predictive purposes.

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